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EXAMINER

ART UNIT PAPER NUMBER

2317

DATE MAILED: 07/02/97

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 4/1/97 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-21 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-21 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

Art Unit: 2317

Response to Amendment

1. Claim 3 has been amended by applicant's amendment (A) filed on 07 April 1997. The following rejections now apply.

2. Claims 1-21 are rejected under 35 U.S.C. § 103 as being unpatentable over applicant's admission of prior art, in view of Taylor et al, patent no. 5,537,466.

3. As to claims 1-3 and 7-9, applicant admits to a bus, at least one memory coupled to the bus for storing data and programming instructions that comprise applications and an operating system, and a processing unit coupled to the bus and running the operating system and applications by executing programming instructions [applicant's disclosure, pages 1-2].

4. However, applicant does not admit to the operating system providing I/O services through a distinct one of a plurality of program structures, each program structure comprising a first programming interface for receiving service requests for a set of I/O services of a first type, a first server coupled to receive service requests and to dispatch service requests to the I/O services, an activation model to define an operating environment in which a server request is to be serviced by the set of I/O

Art Unit: 2317

services, and at least one specific instance of the set of I/O services that operate within the activation model.

5. Taylor et al teach the operating system provides I/O services through a distinct one of a plurality of program structures, each program structure comprising a first programming interface for receiving service requests for a set of I/O services of a first type, a first server coupled to receive service requests and to dispatch service requests to the I/O services, an activation model to define an operating environment in which a server request is to be serviced by the set of I/O services, and at least one specific instance of the set of I/O services that operate within the activation model [abstract, col. 4 lines 18 - col. 5 line 60].

6. It would have been obvious for one skilled in the art at the time of the invention to combine teachings of Taylor et al and applicant's knowledge to prior art because Taylor et al's application program interface arrangement would have increased efficiency and provided improved architecture of existing prior art systems.

7. As to claims 4-6, Taylor et al teach the service requests are transferred as messages in a messaging system, each of the

Art Unit: 2317

plurality of servers supports a message port, and at least one of the plurality of servers is responsive to service requests from applications and from at least one other set of I/O services [col. 4 line 58 - col. 5 line 27].

8. As to claims 10 and 11, Taylor et al teach the first programming interface is responsive to request from applications and from other program structures, and the first programming interface comprises at least one library for converting functions into messages [col. 3 lines 4-21 and col. 5 lines 1-65].

9. As to claim 12, Taylor et al teach the first server receives a message corresponding to a service request from the first programming interface, maps the message into a function called by the client, and then calls the function [col. 6 lines 26-44].

10. As to claims 13 and 14, Taylor et al teach the message comprises a kernel message, and wherein one of the at least one specific instance comprises a service that accesses another program structure [col. 4 line 30 - col. 5 line 27].

11. As to claims 15, Taylor et al teach one of the at least one specific instance communicates to the another program structure of a second type using a message created using a library sent to

Serial Number: 08/435,677

-5-

Art Unit: 2317

the server of the another program structure [col. 4 lines 18-67 and col. 10 lines 46-64].

12. As to claims 16-18, Taylor et al teach two or more I/O services share code or data, the two or more I/O services are of different types, and the program structure further comprises a storage mechanism to maintain identification of available services to which access is provided via the first server [col. 4 line 18 - col. 5 line 27 and col. 10 lines 50-64].


13. Claims 19-21 are the corresponding method claims of claims 1-18, and therefore, are rejected under the same rationale.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rehana Perveen, whose telephone number is (703) 305-8476. The examiner can normally be reached Monday through Friday from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee, can be reached at (703) 305-9717. The fax phone number for this Group is (703) 308-5359.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Rehana Perveen
June 24, 1997


THOMAS C. LEE
SUPERVISOR
230